

**Monograph number:** 07802

**Title:** Praziquantel

**CAS Registry Number:** 55268-74-1

**CAS Name:** 2-(Cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4H-pyrazino[2,1-a]isoquinolin-4-one

**Manufacturers' Codes:** EMBAY 8440

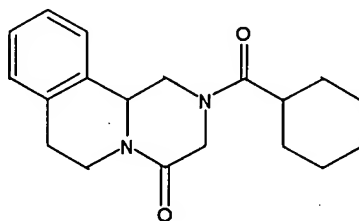
**Trademarks:** Biltricide (Bayer); Cesol (Merck KGaA); Droncit (Bayer)

**Molecular Formula:** C<sub>19</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub>

**Molecular Weight:** 312.41

**Percent Composition:** C 73.05%, H 7.74%, N 8.97%, O 10.24%

**Literature References:** Prepn: J. Seubert *et al.*, **DE** 2362539; *idem*, **US** 4001411 (1975, 1977, both to E. Merck, W. Ger.); D. Frehel *et al.*, *Heterocycles* **20**, 1731 (1983). Properties: J. Seubert *et al.*, *Experientia* **33**, 1036 (1977). *In vitro* study: C. J. Chavasse *et al.*, *Z. Parasitenkd.* **58**, 169 (1979). Effect on ultrastructure of trematodes: H. Mehlhorn *et al.*, *Arzneim.-Forsch.* **33**, 91 (1983). Pharmacodynamics: G. C. Coles, *J. Helminthol.* **53**, 31 (1979). Ovicidal activity in *Echinococcus*: A. S. Thakur *et al.*, *Exp. Parasitol.* **47**, 131 (1979). Clinical pharmacology: G. Leopold *et al.*, *Eur. J. Clin. Pharmacol.* **14**, 281 (1978). Efficacy in dogs: F. L. Anderson *et al.*, *Am. J. Vet. Res.* **40**, 700 (1979). Mutagenicity study: H. Bartsch *et al.*, *Mutat. Res.* **58**, 133 (1978). Tolerance study: P. Muermann *et al.*, *Vet. Med. Rev.* **1976** (2), 142. Symposium on African schistosomiasis: *Arzneim.-Forsch.* **31**, 535-618 (1981). Clinical studies (human schistosomiasis): T. E. Nash *et al.*, *Am. J. Trop. Med. Hyg.* **31**, 977 (1982); R. N. H. Pugh, C. H. Teesdale, *Br. Med. J.* **286**, 429 (1983); C. H. Schutte *et al.*, *S. Afr. Med. J.* **64**, 7 (1983). Clinical trial in human parenchymal brain cysticercosis: J. Sotelo *et al.*, *N. Engl. J. Med.* **310**, 1001 (1984).



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**Properties:** Crystals, mp 136-138°. Soly (g/100 ml): ethanol 9.7; chloroform 56.7; water 0.04. LD<sub>50</sub> in mice, rats (mg/kg): 2000-3000 orally; >3000 s.c. (Muermann).

**Therapeutic Category:** Anthelmintic (Schistosoma).

**Therapeutic Category (Vet.):** Anthelmintic.

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**Monograph number:** 08500

**Title:** Selamectin

**CAS Registry Number:** 220119-17-5

**CAS Name:** (5*Z*)-25-Cyclohexyl-4'-*O*-de(2,6-dideoxy-3-*O*-methyl- $\alpha$ -L-*arabino*-hexopyranosyl)-5-demethoxy-25-de(1-methylpropyl)-22,23-dihydro-5-(hydroxyimino)avermectin A<sub>1a</sub>

**Additional Names:** 5-oxoimino-25-cyclohexyl avermectin B<sub>1</sub> monosaccharide

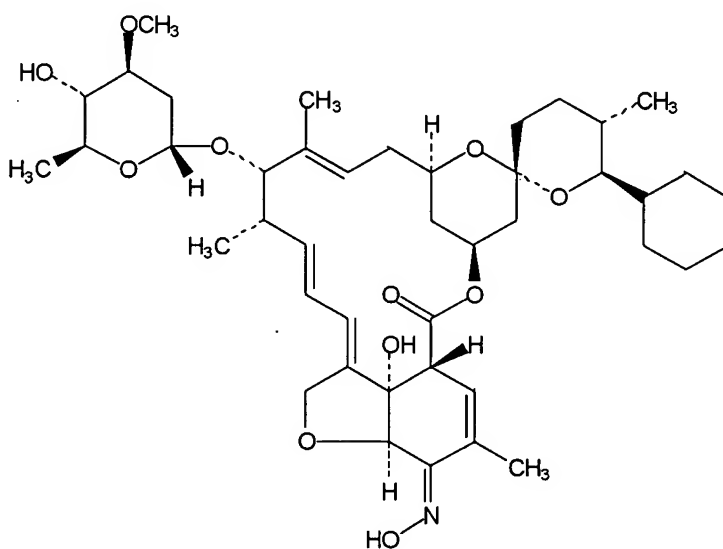
**Trademarks:** Revolution (Pfizer)

**Molecular Formula:** C<sub>43</sub>H<sub>63</sub>NO<sub>11</sub>

**Molecular Weight:** 769.96

**Percent Composition:** C 67.08%, H 8.25%, N 1.82%, O 22.86%

**Literature References:** Antiparasitic semisynthetic avermectin, *q.v.* Prepn: B. F. Bishop *et al.*, WO 9415944; *idem*, US 5981500 (1994, 1999 both to Pfizer).



**Properties:** Waterfast, no unpleasant odor.

**Therapeutic Category (Vet.):** Anthelmintic; ectoparasiticide.

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